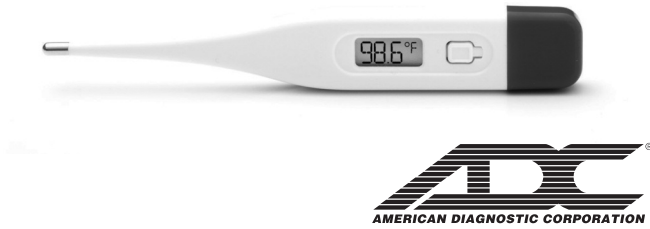


# Adtemp™ 413 Digital Stick Thermometer

## Instructions for Use

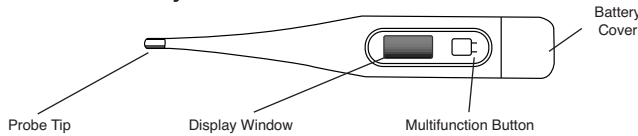


Thank you for choosing an ADC® Adtemp™ digital stick thermometer. Your new thermometer is designed to provide accurate measurements. Adtemp thermometers meet or exceed all relevant international performance standards.

### Device Description and Intended Use

This device is intended to measure human body temperature in children and adults. It has a compact size and digital display and can be used in a professional or household environment.

### Parts and Assembly



### Symbol Definitions

The following symbols are associated with your thermometer.

Symbol	Definition	Symbol	Definition
	Important warning/caution		Meets essential requirements of European Medical Device Directive 93/42/EEC
	Not made with natural rubber latex		Lot number
	Phthalate free		Multifunction button
	Operating instructions		Auto detection error
	Manufacturer's information		Memory indication
	Authorized European representative's information		Low battery indication
	Type BF applied part		Separate collection for waste of electrical and electronic equipment.

### General Warnings

**A warning statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately, could lead to patient injury, illness, or death.**

**WARNING:** This instrument is designed for oral, rectal, or axillary use only.

**WARNING:** High prolonged fever requires medical attention, especially for young children. Please contact your physician.

**WARNING:** Keep out of reach of unsupervised children. Components may be harmful if swallowed.

**WARNING:** Stop using the thermometer if it operates erratically or if the display malfunctions.

**WARNING:** Oral temperature readings are usually 0.5°F to 1.0°F degree lower than rectal readings; axillary readings are generally 0.5°F to 1.0°F lower than oral readings.

**WARNING:** Avoid taking temperature for 30 minutes after physical exercise, bathing, dining, or drinking hot or cold beverages.

**WARNING:** Allow the thermometer to warm naturally to room temperature before using. Performance may be affected if operated or stored outside stated temperature and humidity ranges or if the patient's temperature is below the ambient (room) temperature.

**WARNING:** After using, clean the thermometer and place it into the case. Clean the unit by wiping it with a dry cloth and disinfect the probe with isopropyl (rubbing) alcohol. See cleaning instructions for additional details.

**CAUTION:** Keep thermometer away from direct sunlight, extreme temperatures, or dust.

**CAUTION:** Do not boil, bite, bend, drop, or disassemble the thermometer.

**CAUTION:** Do not open the unit except to replace the battery.

**CAUTION:** Do not use this device close to strong electromagnetic fields, such as mobile telephones.

**CAUTION:** Do not autoclave. Please note the cleaning procedures described in this manual.

**CAUTION:** Dispose of batteries in accordance with locally applicable regulations, not with domestic waste.

**CAUTION:** IP22: Protected against solid foreign objects of 12.5mm diameter and greater. Protected against vertically falling water drops when the device is tilted up to 15°.

### How to Use

1. Disinfect the probe with isopropyl (rubbing) alcohol before using.
2. Press and release the multifunction button. The display will read **188.8°F** confirming the unit is functioning properly. The last measured temperature will be displayed for approximately 2 seconds. Next the thermometer will read L °F, (or L °C).
3. We recommend using probe covers with all digital stick thermometers. If using, place cover over tip of unit.
4. Place the probe in the appropriate position for your measurement site (see **Ensuring Accurate Temperature Measurement** below).
5. The °F or °C symbol will flash when the unit is ready to measure temperature. Please note that the "⊖" indicates a low battery. See instructions for replacing battery before measuring temperature. Do not expect an accurate temperature reading if this low battery indicator is present. An "ERR" message in the window indicates your unit is not functioning properly.
6. Depending on the measurement site, the unit will complete measurement in approximately 30-40 (oral), 25-35 (rectal), or 90 (axillary) seconds. The display will flash and the unit will beep signaling completion.
7. Read and record the temperature and time for reference. The reading will automatically be stored in the memory.
8. The unit will automatically turn off in about 8 minutes. To prolong battery life, press the multifunction button to turn off the device manually.

### Switching Temperature Modes

From the OFF position, the Celsius or Fahrenheit mode can be switched by pressing and holding the multifunction button for at least 5 seconds. After 3 seconds in one scale the °F or °C will flash, indicating ready to measure.

### Ensuring Accurate Temperature Measurement

We recommend using probe covers with all digital stick thermometers (Figure 1).

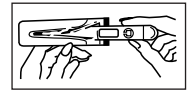


Figure 1

**Oral Use:** Place the probe well under the patient's tongue (Figure 2). Keep mouth closed while thermometer is reading.

Instruct children not to bite down on the probe. The peak temperature should be reached in as little as 30\* seconds. Opening the mouth or improper placement of the probe tip could result in a longer time for a reading.

(\*30 second response time achieved in water bath test)

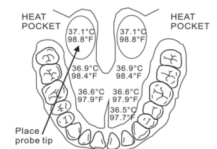


Figure 2

**Rectal Use:** Lubricate the probe cover with a water-soluble jelly for easier insertion; do not use petroleum jelly, as it may cause an inaccurate reading. Gently insert the tip of the probe no more than 1/2 inch into the rectum.

**STOP** if you meet any resistance. The sensing unit is on the very tip of the probe and there is no need to insert the probe deep into the rectum.

Dispose of the used probe cover and wash the thermometer as recommended. The peak temperature should be reached in approximately 25-35 seconds.

**Axillary Use:** Wipe armpit with a dry towel. Place the probe in the patient's armpit (Figure 3) and keep the patient's arm pressed firmly against the body. In order to achieve a better axillary reading, a minimum measuring time of 90 seconds or longer is recommended, depending on placement of the probe and closure of the arm against the body.

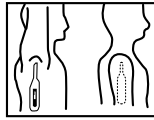


Figure 3

### Battery Replacement

1. When the symbol "⊖" appears, the battery needs to be replaced.
2. Remove battery compartment lid (Figure 4).
3. Use a pointed object such as a toothpick to pry loose the old battery. Avoid using any sharp metal object.
4. Place new 1.55V coin-type battery (LR41 or equivalent) in the chamber with the positive (+) side facing up or towards the display of the unit.
5. Replace the battery compartment lid.

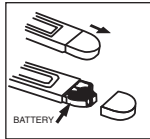


Figure 4

### Cleaning and Disinfecting

- ⚠ **Do not use corrosive detergent to clean the unit.**
- ⚠ **Clean and disinfect the thermometer before and after each use.**

### Cleaning Process

1. Wipe probe with a cloth dipped in a disinfectant solution such as 70% isopropyl (rubbing) alcohol or soap and water.
2. Rinse off disinfectant residue.

### Care and Storage

- Do NOT drop or crush; this device is not shock proof.
- Do NOT dismantle or modify device other than replacing the battery.
- Do NOT store the device in an extreme environment with direct sunlight or high temperatures.
- Store the unit in the protective case while not in use.

### Specifications

<b>Size:</b>	5"L x 3/4"W x 3/8"H (12.7cm L x 1.9 cm W x .95 cm H)	
<b>Weight:</b>	0.388 oz. (11 grams)	
<b>Display:</b>	LCD, Liquid Crystal Display	
<b>Battery:</b>	1.55V (LR41)	
<b>Battery Life:</b>	Estimated 4,500 measurements	
<b>Measurement Time:</b>	Oral 30* seconds / Rectal 25-35 seconds / Axillary 90 seconds	
<b>Measurement Range:</b>	90.0°F to 109.9°F (32.0°C to 42.9°C)	
<b>Accuracy:</b>	96.0°F to 107.0°F ±0.2°F / 1°C (34.0°C to 42.0°C) at a room temperature of 64.4°F to 82.4°F (18.0°C to 28.0°C)	
	90.0°F to 96.0°F ±0.4°F / 0.2°C (32.0°C to 34.0°C) and 107.0°F to 109.9°F (42.0°C to 42.9°C)	
<b>Measurement mode:</b>	Real measurement with peak-hold method	
<b>Audible Alarm:</b>	1 beep at start-up. Continuous beep at measurement completion	
<b>Auto Turn-off</b>	In approximately 8 ±1 minutes	
<b>Memory:</b>	Last reading	
<b>Operating Conditions:</b>	50°F to 104°F (10°C to 40°C) Humidity of 15% to 95% (non-condensing)	
<b>Storage Conditions:</b>	-13°F to 131°F (-25°C to 55°C) Humidity of 15% to 95% (non-condensing)	
<b>Standards:</b>	Complies with EN 12470-3, ASTM E 1112-00, IEC 60601-1, IEC 60601-1-2, IEC 60601-1-11 Electromagnetic compatibility: device fulfills the stipulations of standard IEC 60601-1-2 <i>The manufacturer recommends a calibration check every 2 years.</i>	

\*30-second response time achieved in water bath test.

### LIMITED WARRANTY

ADC warrants its products against defects in materials and workmanship under normal household use and service as follows:

1. Warranty service extends to the original retail purchaser only and commences with the date of delivery.
2. Your Adtemp Digital Stick Thermometer is warranted for two years from date of purchase.

**What Is Covered:** Replacement of parts, and labor.

**What Is Not Covered:** Transportation charges to ADC. Batteries where supplied. Damages caused by abuse, misuse, accident, or negligence, incidental, special, or consequential damages. Some states do not allow the exclusion or limitation of incidental, special, or consequential damages, so this limitation may not apply to you.

**To Obtain Warranty Service:** Send item(s) postage paid to ADC, Attn: Repair Dept., 55 Commerce Dr., Hauppauge, NY 11788. Please include your name and address, phone no., proof of purchase, and a brief note explaining the problem.

**Implied Warranty:** Any implied warranty shall be limited in duration to the terms of this warranty and in no case beyond the original selling price (except where prohibited by law).

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

**For Australian Consumers:** Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonable foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



Microlife Corporation  
9F, 431 RuiGuang Road  
NeiHu, Taipei 114, Taiwan, R.O.C.

Medical Device Safety Service GmbH  
(MDSG GmbH)  
Schiffgraben 41, 30175 Hannover, GERMANY

Mfg. by: ADC®  
55 Commerce Drive, Hauppauge, NY 11788  
Inspected in the USA  
Made in China  
Assembled in Vietnam  
tel: 631-273-9600  
toll free: 1-800-232-2670  
fax: 631-273-9659  
www.adctoday.com  
email: info@adctoday.com

